

REMARKS

A. Background

Claims 10 and 12 - 26 were pending in the application at the time of the office action. Claims 10 and 12 - 26 were rejected as being obvious over cited art. By this response, Applicant has amended claims 10 and 19. Applicant has also cancelled claims 14, 15, 23 and 24 whilst adding new claims 27 and 28. As such, claims 10, 12, 13, 16 - 22 and 25 - 28 are presented for the Examiner's consideration in light of the following remarks.

B. Proposed Amendments

By this response Applicant has amended claims 10 and 19 to further clarify, more clearly define and/or broaden the claimed inventions to expedite receiving a Notice of Allowance. Amendments to claims 10 and 19 are supported by the embodiments of Figures 1A to 3B and the corresponding disclosure in the description. The features of previous claims 14, 15, 23, and 24 have respectively been incorporated at least in part into claims 10 and 19. New claims 27 and 28 are supported by Figure 1b as originally filed. In view of the foregoing, Applicant submits that the amendments to the claims do not introduce new matter and entry therefore is respectfully requested.

C. Obviousness Rejections

Applicant acknowledges that there are no further novelty rejections.

Paragraph 8 of the Office Action rejects claims 10, 12, 15, 18 - 21, and 24 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,191,893 to Reiten in view of U.S. Patent No. 7,267,652 to Coyle et al..

Reiten shows an arrangement with a first belt monitoring sensor 11 positioned about a limited strip of the torso of a subject at a chest location and a second belt monitoring sensor 12 at an abdominal location thereupon; the first and second belts being separate components whilst no component is provided between the belts. The arrangement contains a remote pressure monitoring apparatus 14 with a pressure sensor which is effectively sealed in the tube 13 and which can sense pressure changes occurring only in the confined space of the hollow of the tube. Elongate belts extend entirely around the user's body with buckle pieces 17 and 18 located above the anterior chest of a subject. The belts of Reiten extend only laterally and are elongate. Each belt can only at best cover a portion of the chest or abdomen. Neither can cover both the chest and the abdomen. The belts can only be subjected to lateral extension and therefore any monitoring of the displacement of the lung region is limited. The air enclosure 15 does not cover the anterior chest or upper abdomen. By contrast, buckle pieces 17 and 18 are present in the anterior portion for belt 11 and in the middle abdomen portion for belt 12 of the subject.

In view of the foregoing, Reiten fails to disclose at least the following limitations present in amended independent claims 10 and 19:

- “at least one chamber located in both said front and rear panels” - in Reiten, due to the presence of the buckle, it is either the front or the rear, not both;
- “at least one chamber being sized and shaped so as to substantially entirely cover the chest wall and at least the upper abdomen of the user's body” - instead in Reiten the chamber can at best only span a portion of the lung region;
- “said inner wall being spaced from said outer wall throughout the entire lung region” - instead in Reiten the inner and outer walls join together near the edges of the belt as can be seen in either Figure 4 or Figure 5;

- the inner wall being “substantially flexible to remain in contact with the entire lung region whilst the outer wall is substantially rigid in order to remain in position during the displacement of the lung region” - instead in Reiten the belt is presented as an elastic belt 16, the only rigid component being the belt buckle which cannot be said to constitute a chamber defining wall of any kind;
- the differences identified on page 5 by the Examiner are also not disclosed in Reiten, *i.e.*, Reiten also fails to teach the “front panel corresponding to the user’s front; a rear panel corresponding to the user’s back;” “an upper aperture sized and shaped to allow the user’s head to be outside the item when worn;” “a lower aperture sized and shaped to allow the user’s legs to be outside the item when worn;” and “said front panel extending from said upper aperture to said lower aperture and being sized and shaped to substantially entirely cover the anterior chest wall and at least the upper abdomen.”

Furthermore, Coyle also does not teach “at least one chamber located in both said front and rear panels.” In contrast, Coyle shows that localized sensors, such as distinct sensors 5 and 6, can be located on the front section of the item. See Paragraphs [0040] and [0041] in combination with Figure 1. Coyle also fails to show “at least one chamber being sized and shaped so as to substantially entirely cover the chest wall.” Each one of the sensors described and suggested, for example, on page 1 in Paragraphs [0010] and [0011] are designed for measuring localized movement. Coyle also fails to show an “inner wall being spaced from said outer wall throughout the entire lung region;” instead Coyle uses a number of localized sensors. Furthermore, Coyle also fails to show an outer wall which is “substantially rigid” whilst the inner wall is “substantially flexible.”

Even *arguendo* placing Reiten's sensor in Coyle's garment, the combination of features of main independent claims 10 and 19 are not obtained.

Further, even *arguendo* combining Wright, Coyle and Reiten, the features of new claims 10 and 19 are not obtained. The combination of these documents fails to show "at least one chamber located in both said front and rear panels." At best sensors 5 and 6 of Coyle could be replaced by two sensors of the kind taught in Wright. There is also no "chamber being sized and shaped so as to substantially entirely cover the chest wall and at least the upper abdomen of the user's body." Furthermore, due to the presence of the rigid frame 2 and the rim 4, the periphery of the sensor in Wright is rigid. The inner wall would therefore not be "spaced from said outer wall throughout the entire lung region."

The fact that such a combination of documents, *i.e.* Coyle, Wright and Reiten would be necessary as a starting point for an obviousness rejection is an indication of non-obviousness.

Due to the differences present, even considering the combination of the three documents, further documents would be necessary for an obviousness rejection. This would therefore be a further indication of non-obviousness.

By providing at least one chamber located in both said front and rear panels and the chamber being sized and shaped so as to substantially entirely cover the chest wall and at least the upper abdomen of the user's body, the volume contained in the at least one chamber can be advantageously related to the volume present in the lungs of a patient. The behavior of the displacement of the flexible inner wall relative to the inextensible outer wall provides an improved correlation of the volumetric overall properties of a patient's lungs. By providing the configuration of the invention, improved lung function tests are performed which avoid having to use a relatively large number of local sensors such as shown in any of the prior art documents

which would then require complex mathematical procedures for assessment. The combination of features provides considerable simplification in this field where the most comparable volumetric assessment is only obtained in a full body-sized box as described in the background section of the specification of the invention. (See page 2 of specification.)

In view of the foregoing, applicant respectfully requests the withdrawal of the rejection of claims 10 and 19. Claims 14, 15, 23, and 24 have been cancelled herein and thus the rejections thereof are now moot. Claims 12 and 18 – 21 depend from claim 10 or 19 and thus incorporate the limitations thereof. As such, claims 12 and 18 – 21 are distinguished over the prior art for at least the same reasons as discussed above with regard to claims 10 and 19.

The Office Action rejects claims 13, 14, 22, and 23 under 35 USC § 103(a) as being obvious over the Reiten patent in view of the Coyle patent as applied to claims 10 and 19, and further in view of U.S. Patent No. 4,559,953 to Wright. Furthermore, claims 16, 17, 25, and 26 are rejected under 35 USC § 103(a) as being obvious over the Coyle patent in view of the Reiten patent as applied to claims 10 and 19 and further in view of U.S. Patent No. 5,159,935 to Sackner. Each of these claims has either been cancelled or depends from claim 10 or claim 19 and thus incorporate the limitations thereof. As such Applicant submits that the claims are distinguished over the cited art for at least the same reasons as discussed above with regard to claims 10 and 19. Accordingly, Applicant respectfully requests that the obviousness rejections with regard to all of the dependent claims also be withdrawn.

D. Conclusion

The applicant notes that this response does not discuss every reason why the claims of the application are distinguished over the cited art. Most notably, Applicant submits that many if not all of the dependent claims are independently distinguishable over the cited art. Applicant has merely submitted those arguments which it considers sufficient to clearly distinguish the claims over the cited art.

In view of the foregoing, Applicant respectfully requests the Examiner's reconsideration and allowance of the claims as amended and presented herein.

In the event there remains any impediment to allowance of the claims which could be clarified in a telephonic interview, the Examiner is respectfully requested to initiate such an interview with the undersigned.

Dated this 6th day of July 2009.

Respectfully submitted,

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